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10/022,271	12/20/2001	Shinji Abe	Q67792	7657

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SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

DAMIANO, ANNE L

ART UNIT	PAPER NUMBER
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2114

DATE MAILED: 06/18/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/022,271

Applicant(s)

ABE ET AL.

Examiner

Anne L Damiano

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,7,10-12,15-18,21,23,26 and 27 is/are rejected.
- 7) ☒ Claim(s) 3,4,6,8,9,13,14,19,20,22,24,25,28 and 29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Allowable Subject Matter

2. Claims 3, 4, 6, 8, 9, 13, 14, 19, 20, 22, 24, 25, 28 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Objections

3. Claim 17 is objected to because of the following informalities: Lines 5-6, "said above protective memory" lacks antecedent basis. This is interpreted as saying, "a protected memory." Lines 14-15, "said protective volatile memory" lacks antecedent basis. This is interpreted as saying, "said protective memory." Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 5, 7, 17, 18, 21, 23, 26 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by George (6,317,657).

As in claim 1, George discloses

A memory protection unit for protecting data stored in a volatile memory to be protected, in the event of a power failure (column 1: lines 64-65) (Battery backup for the SDRAM is protecting the memory by not removing power from it.),

Said memory protection unit comprises

Power monitoring means for detecting a power failure supplied to said above protective memory (battery backup module) (column 3: lines 15-19), and

Switch controlling means for switching a control and power supply toward said protective memory (figure 3, column 3: lines 60-63 and column 5: line 64-column 6: line 15), (In normal mode the external memory controller controls the SDRAM and the system power powers the system.), wherein

When a failure is detected in the power supplied to said protective memory, the control toward said memory is switched to a side of said memory protection unit and said power supply is switched to a standby power before said protective memory has some damaging effect (column 3: lines 15-26). (Note: A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process

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steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).)

As in claim 2, George discloses

Said switch controlling means finishes the switching, returns the control toward said memory to a CPU (external memory controller) (column 3: lines 60-63), and returns said power supply to an ordinal one, after solution of the power failure (column 4: lines 22-35). (When the system power supply returns, the system moves back to normal mode, where the EMC controls the memory and the SDRAM power goes back to the system power from the battery.)

As in claim 5, George discloses

Said switch controlling means switches said memory to a low power mode (refresh mode) at a time of switching said power supply toward said memory to the standby power (column 2: lines 9-15).

As in claim 7, George discloses

Said protective memory is SDRAM or DIMM (column 1: line 4-6).

As in claim 17, George discloses

Detecting a power failure supplied to a protective memory (battery backup module) (column 3: lines 15-19), and

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Switching a control and power supply toward said protective memory (figure 3, column 3: lines 60-63 and column 5: line 64-column 6: line 15), (In normal mode the external memory controller controls the SDRAM and the system power powers the system.), in which

When a failure is detected in the power supplied to said protective memory, the control toward said memory is switched to a side of said memory protection unit and said power supply is switched to a standby power before said protective memory has some damaging effect (column 3: lines 15-26),

So as to protect the data stored in said protective memory, in the event of a power failure (column 1: lines 4-7). (Note: A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).)

As in claim 18, George discloses the memory management method further comprising

A step of finishing the switching, returning the control toward said memory to a CPU (external memory controller) (column 3: lines 60-63), and returning said power supply to an ordinal one, after solution of the power failure (column 4: lines 22-35). (When the system power supply returns, the system moves back to normal mode, where the EMC controls the memory and the SDRAM power goes back to the system power from the battery.)

As in claim 21, George discloses the memory management method further comprising

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A step of switching said memory to a low power mode (refresh mode) at a time of switching said power supply toward said memory to the standby power (column 2: lines 9-15).

As in claim 23, George discloses the memory management method, wherein

Said protective memory is SDRAM or DIMM (column 1: line 4-6).

As in claim 26, George discloses a memory management program, comprising the following functions of:

Detecting a power failure supplied to a protective memory (battery backup module) (column 3: lines 15-19), and

Switching a control and power supply toward said protective memory (figure 3, column 3: lines 60-63 and column 5: line 64-column 6: line 15), (In normal mode the external memory controller controls the SDRAM and the system power powers the system.), in which

When a failure is detected in the power supplied to said protective memory, the control toward said protective memory is cut off from a CPU and said power supply is switched to a standby power before said protective memory has some damaging effect (column 3: lines 15-26),

So as to protect the data stored in said protective memory, in the event of a power failure (column 1: lines 4-7). (Note: A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).)

As in claim 27, George discloses the memory management program further comprising
A step of finishing the switching, returning the control toward said memory to said CPU
(external memory controller) (column 3: lines 60-63), and returning said power supply to an
ordinal one, after solution of the power failure (column 4: lines 22-35). (When the system power
supply returns, the system moves back to normal mode, where the EMC controls the memory
and the SDRAM power goes back to the system power from the battery.)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 2, 5, 7, 10-12, 15-18, 21, 23, 26 and 27 are rejected under 35 U.S.C. 103(a) as
being unpatentable over George (6,317,657).

Regarding claim 1, George discloses As in claim 1, George discloses

A memory protection unit for protecting data stored in a volatile memory to be protected,
in the event of a power failure (column 1: lines 64-65) (Battery backup for the SDRAM is
protecting the memory by not removing power from it.),

Said memory protection unit comprises

Power monitoring means for detecting a power failure supplied to said above protective memory (battery backup module) (column 3: lines 15-19), and

Switch controlling means for switching a control and power supply toward said protective memory (figure 3, column 3: lines 60-63 and column 5: line 64-column 6: line 15), (In normal mode the external memory controller controls the SDRAM and the system power powers the system.), wherein

When a failure is detected in the power supplied to said protective memory, the control toward said memory is switched to a side of said memory protection unit and said power supply is switched to a standby power before said protective memory has some damaging effect (column 3: lines 15-26).

George discloses a system for power battery backup of SDRAM data upon power failure (column 1: lines 4-7). However, George does not specifically disclose the system being implemented on a server for establishing communication upon receipt of access from a client terminal through a network comprising above components.

It would have been obvious to a person skilled in the art at the time the invention was made to use George's method in the SDRAM on a server for establishing communication upon receipt of access from a client terminal through a network. It would have been obvious because a server can have SDRAM on which George's system could be implemented. A person skilled in the art would have understood that George's system could be implemented on any SDRAM intended to operate from a system power supply, as a server for establishing communication upon receipt of access from a client terminal through a network does.

As in claim 2, George discloses the server as set forth in claim 1, wherein

Said switch controlling means finishes the switching, returns the control toward said memory to a CPU (external memory controller) (column 3: lines 60-63), and returns said power supply to an ordinal one, after solution of the power failure (column 4: lines 22-35). (When the system power supply returns, the system moves back to normal mode, where the EMC controls the memory and the SDRAM power goes back to the system power from the battery.)

As in claim 5, George discloses the server as set forth in claim 1, wherein

Said switch controlling means switches said memory to a low power mode (refresh mode) at a time of switching said power supply toward said memory to the standby power (column 2: lines 9-15).

As in claim 7, George discloses the server as set forth in claim 1, wherein said protective memory is SDRAM or DIMM (column 1: line 4-6).

Regarding claim 10, George discloses a server with a memory protection system above. However, George does not specifically disclose the server being a Network Attached Storage of File Server.

It would have been obvious to a person skilled in the art at the time the invention was made to use George's method in the SDRAM of a Network Attached Storage of File Server. It would have been obvious because a NFS or File Server can have SDRAM on which George's

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system could be implemented. A person skilled in the art would have understood that George's system could be implemented on any SDRAM intended to operate from a system power supply, as a NFS or File server does.

Regarding claim 11, George discloses a memory protection unit for protecting data stored in a volatile memory to be protected, in the event of a power failure (column 1: lines 64-65) (Battery backup for the SDRAM is protecting the memory by not removing power from it.),

Said memory protection unit comprises

Power monitoring means for detecting a power failure supplied to said above protective memory (battery backup module) (column 3: lines 15-19), and

Switch controlling means for switching a control and power supply toward said protective memory (figure 3, column 3: lines 60-63 and column 5: line 64-column 6: line 15), (In normal mode the external memory controller controls the SDRAM and the system power powers the system.), wherein

When a failure is detected in the power supplied to said protective memory, the control toward said memory is switched to a side of said memory protection unit and said power supply is switched to a standby power before said protective memory has some damaging effect (column 3: lines 15-26).

George discloses a system for power battery backup of SDRAM data upon power failure (column 1: lines 4-7). However, George does not specifically disclose a computer system for establishing mutual communication between a client terminal and a server through a network with the server comprising the above components.

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It would have been obvious to a person skilled in the art at the time the invention was made to use George's method in the SDRAM on a server and a computer system for establishing mutual communication between a client terminal and the server through a network. It would have been obvious because a server can have SDRAM on which George's system could be implemented. A person skilled in the art would have understood that George's system could be implemented on any SDRAM intended to operate from a system power supply, as a server used in a computer system for establishing mutual communication between a client terminal and a server through a network does.

As in claim 12, George discloses the server as set forth in claim 1, wherein

Said switch controlling means finishes the switching, returns the control toward said memory to a CPU (external memory controller) (column 3: lines 60-63), and returns said power supply to an ordinal one, after solution of the power failure (column 4: lines 22-35). (When the system power supply returns, the system moves back to normal mode, where the EMC controls the memory and the SDRAM power goes back to the system power from the battery.)

As in claim 15, George discloses the server as set forth in claim 1, wherein

Said switch controlling means switches said memory to a low power mode (refresh mode) at a time of switching said power supply toward said memory to the standby power (column 2: lines 9-15).

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Regarding claim 16, George discloses a server with a memory protection system above. However, George does not specifically disclose the server being a Network Attached Storage of File Server.

It would have been obvious to a person skilled in the art at the time the invention was made to use George's method in the SDRAM of a Network Attached Storage of File Server. It would have been obvious because a NFS or File Server can have SDRAM on which George's system could be implemented. A person skilled in the art would have understood that George's system could be implemented on any SDRAM intended to operate from a system power supply, as a NFS or File server does.

Regarding claim 17, George discloses a memory management method, comprising the following steps of:

Detecting a power failure supplied to a protective memory (battery backup module) (column 3: lines 15-19), and

Switching a control and power supply toward said protective memory (figure 3, column 3: lines 60-63 and column 5: line 64-column 6: line 15), (In normal mode the external memory controller controls the SDRAM and the system power powers the system.), in which

When a failure is detected in the power supplied to said protective memory, the control toward said memory is switched to a side of said memory protection unit and said power supply is switched to a standby power before said protective memory has some damaging effect (column 3: lines 15-26),

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So as to protect the data stored in said protective memory, in the event of a power failure (column 1: lines 4-7).

However, George does not specifically disclose the memory management method being implemented on a server for establishing communication upon receipt of access from a client terminal through a network comprising above components.

It would have been obvious to a person skilled in the art at the time the invention was made to use George's method in the SDRAM on a server for establishing communication upon receipt of access from a client terminal through a network. It would have been obvious because a server can have SDRAM on which George's system could be implemented. A person skilled in the art would have understood that George's system could be implemented on any SDRAM intended to operate from a system power supply, as a server for establishing communication upon receipt of access from a client terminal through a network does.

As in claim 18, George discloses the memory management method further comprising

A step of finishing the switching, returning the control toward said memory to a CPU (external memory controller) (column 3: lines 60-63), and returning said power supply to an ordinal one, after solution of the power failure (column 4: lines 22-35). (When the system power supply returns, the system moves back to normal mode, where the EMC controls the memory and the SDRAM power goes back to the system power from the battery.)

As in claim 21, George discloses the memory management method further comprising

A step of switching said memory to a low power mode (refresh mode) at a time of switching said power supply toward said memory to the standby power (column 2: lines 9-15).

As in claim 23, George discloses the memory management method, wherein
Said protective memory is SDRAM or DIMM (column 1: line 4-6).

Regarding claim 26, George discloses a memory management program, comprising the following functions of:

Detecting a power failure supplied to a protective memory (battery backup module)
(column 3: lines 15-19), and

Switching a control and power supply toward said protective memory (figure 3, column 3: lines 60-63 and column 5: line 64-column 6: line 15), (In normal mode the external memory controller controls the SDRAM and the system power powers the system.), in which

When a failure is detected in the power supplied to said protective memory, the control toward said protective memory is cut off from a CPU and said power supply is switched to a standby power before said protective memory has some damaging effect (column 3: lines 15-26),

So as to protect the data stored in said protective memory, in the event of a power failure (column 1: lines 4-7).

However, George does not specifically disclose the memory management program being implemented on a server for establishing communication upon receipt of access from a client terminal through a network comprising above components.

It would have been obvious to a person skilled in the art at the time the invention was made to use George's method in the SDRAM on a server for establishing communication upon receipt of access from a client terminal through a network. It would have been obvious because a server can have SDRAM on which George's system could be implemented. A person skilled in the art would have understood that George's system could be implemented on any SDRAM intended to operate from a system power supply, as a server for establishing communication upon receipt of access from a client terminal through a network does.

As in claim 27, George discloses the memory management program further comprising

A step of finishing the switching, returning the control toward said memory to said CPU (external memory controller) (column 3: lines 60-63), and returning said power supply to an ordinal one, after solution of the power failure (column 4: lines 22-35). (When the system power supply returns, the system moves back to normal mode, where the EMC controls the memory and the SDRAM power goes back to the system power from the battery.)

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

See PTO-892.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne L Damiano whose telephone number is (703) 305-8010.

The examiner can normally be reached on M-F 9-6:30 first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ALD



SCOTT BADERMAN
PRIMARY EXAMINER